

### **REMARKS/ARGUMENTS**

Reconsideration and withdrawal of the outstanding ground of rejection is respectfully requested in light of the above amendments and the remarks that follow.

The Examiner has rejected claims 1, 2, 5 and 6 under 35 U.S.C. 103 as unpatentable over Obrochta et al. (U.S. 4,283,835) in view of the admitted prior art in paragraph 2 of the specification as filed.

According to the Examiner, the primary reference to Obrochta discloses the core 20 having a solid, curved upper body portion, a pair of substantially planar legs extending downwardly from the upper body portion and separated by an elongated slot 37. The Examiner relies upon the admitted prior art for teaching coplanar leg portions and concludes that it would have been obvious to modify the design of Obrochta by using coplanar "pants-leg" portions as taught by the admitted prior art.

The Examiner will note that the slot shown at 37 in Figure 2 is not an open slot but rather, a closed channel-shaped groove as is apparent from Figure 1 where the base or back of the groove is shown at 39, extending along the full length of the groove 37. The Examiner will also note that the groove 37 extends only a relatively small distance in the axial direction of the core.

Applicant has amended claims 1 and 7 to require that the slot be an open slot and that it extend from the lower end of the core upwardly into the upper body portion. Support for this language is found in Figures 1-4 of the drawings. In addition, the claim

also requires that the slot extend more than half the height dimension of the core and again, reference is made to the originally filed drawing figures for support.

The Examiner maintains that the upper portion of Obrochta is "curved" by reason of the curved center portion (best seen in Figure 1), despite the fact that extending from this center curved portion is a pair of oppositely extending planar or flat portions.

Regardless of how Obrochta is interpreted with respect to whether or not the upper body portion is curved, it remains that the claim calls for an upper body portion with a pair of coplanar legs extending downwardly from the upper body portion. Thus, the claim makes it clear that there are two significant shapes in the core, i.e., the curved upper portion and the pair of legs in another portion that are coplanar. In any event, to make the so-called leg portions of Obrochta coplanar as proposed by the Examiner may not even be possible in light of the pattern P formed about the core. Thus, given the overall uniform shape of the core in Obrochta, and even in light of the acknowledgement on page 1 of the application that a "pants-leg" shaped core has been used in the bucket shank portion of the shell die to form a pair of cooling passages, the suggestion to modify Obrochta as proposed by the Examiner to include two distinct and differently shaped portions could only have come from applicant's own disclosure. Accordingly, the rejection is clearly based on the utilization of impermissible hindsight and must be withdrawn.

The Examiner has also rejected claims 3, 4 and 7-9 as unpatentable over Obrochta in view of the admitted prior art and further in view of Willet (EP 1 022 434 A2) or Lee

(U.S. 6,234,753). The Willet and Lee references are cited for teaching an elliptical shape for cooling passages. However, since these references do not remedy the deficiency in the base combination of Obrochta and the acknowledged prior art, the rejection as applied to claims 7-9 is also improper for the same reasons as presented above. Note that claims 3 and 4 have been cancelled. Further, and with regard to dependent claim 9, none of the pegs in Obrochta are laterally aligned as required by that claim.


It is respectfully submitted that the remaining claims 1, 2 and 5-9 are in condition for allowance. Further in this regard, entry of the amendment is believed fully consistent with 37 CFR 1.116(b), since applicant did not fully appreciate the Examiner's position with respect to the upper body portion of Obrochta (curved versus a combination of curved and flat). Since the amendment clearly renders the claims patentably distinguishable over the prior art, no further consideration and/or search is required on the part of the Examiner.

Early passage to issue is requested. In the event, however, any small matters remain outstanding, the Examiner is encouraged to telephone the undersigned so that the prosecution of this application can be expeditiously concluded.

BEDDARD et al.  
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Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By:   
Michael J. Keenan  
Reg. No. 32,106

MJK:ljb  
1100 North Glebe Road, 8th Floor  
Arlington, VA 22201-4714  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100